1 Purpose

This plan establishes the process for transitioning from the ODOT Hydraulic Design Manual 2014 Edition (HDM) to the fully rewritten Hydraulic Manual (HM) (202X Edition). The rewrite provides improved guidance, removes redundancy, and incorporates current engineering standards, geomorphic considerations, and climate resilience principles.

The manual rewrite will be released in stages, with revised chapters published as they are finalized and approved. This plan outlines the phased release approach and staff coordination during the transition.

2 Transition Plan

The Federal Highway Administration (FHWA) and other DOT's commonly use an interim approval model when updating large technical manuals or standards.

In such an approach:

- New guidance is issued with an effective date and a statement of what prior version the new chapter supersedes.
- Until the full manual is completed, both the legacy version and the new version remain valid, with guidance on which to apply.
- Once the new revision is complete, the legacy version is formally retired or archived.

HES is using the same approach to the Hydraulic Manual rewrite. Each chapter will include an effective date and supersession statement, while chapters not yet updated will remain valid under the 2014 edition. When all updates are complete, the new chapters will form the comprehensive "202X Edition." This process enables continuous improvement, reduces delays, and clarifies which standards apply for designers and consultants.

A new Preface will include language explaining the transition plan, clearly guiding both ODOT staff and external consultants through the shift from the 2014 Hydraulic Design Manual to the 202X Edition.

Preface:

> "The Hydraulic Manual is being rewritten to align with current engineering practices, environmental regulations, and design standards. To ensure timely availability of improved guidance, updated chapters will be released individually as they are completed. Each new chapter supersedes the chapter in the 2014 edition as shown in Table 1 below.
>
> During this transition period, chapters not yet updated remain in effect from the 2014 manual. A crosswalk table is provided to help users locate equivalent topics. Once all chapters are finalized, a complete version of the 202X Hydraulic Manual will be published.
>
> Legal/Technical Note – Chapter Numbering and Supersession

Some chapters in the 202X Hydraulic Manual may share the same chapter number as chapters in the 2014 HDM edition. This numeric overlap does not create legal issues, provided that users reference the effective date for each chapter. Each updated chapter includes a statement identifying which 2014 HDM chapter the 202X Edition replaces, and chapters not yet updated remain valid until replacement."

> Note: Chapters 12 (Storage Facilities) and 14 (Water Quality) in the 2014 HDM will be moved and placed in a new 202X Stormwater Design Manual, separate from the 202X Hydraulic Manual.

Table 1 202X Hydraulic Manual Chapter Cross-Walk

	Hydraulic Manual (202x)	Hydraulic Design Manual (2014)
Chapter	**Title**	**Chapters**
1	Policy	1) Introduction 2) Legal Aspects 3) Policy 4) Documentation
2	Hydrology	7) Hydrology
3	Data Collection	6) Data Collection
4	Channels	8) Channels 15) Bank Protection
5	**Geomorphology**	N/A
6	Bridge	10) Bridge
7	Culverts	9) Culverts 17) Field Markers
8	Energy Dissipators	11) Energy Dissipators
9	**Fish Passage**	N/A
10	Storm/Roadway Drainage	13) Storm Drains
11	Pipe Materials	5) Pipe Materials
12	Temporary Water Management	18) Temporary Water Management
13	Trenchless Pipe Rehabilitation	16) Trenchless Technology
14	**Coastal Hydraulics**	N/A
15	**Construction**	N/A

Stormwater Design Manual

A new ODOT *202X Stormwater Design Manual* (SDM) will be developed separately from the ODOT *202X Hydraulic Manual*. The SDM will provide guidance on the planning, selection and design of stormwater management facilities on the highway system. The purpose of the SDM is to provide guidance on stormwater management standards, compliance with regulatory requirements, stormwater policies, and best practices. The manual will incorporate regulatory updates, provide

technical improvements (update design standards, criteria, policies) and usability enhancements. Chapters 12 (Storage Facilities) and 14 (Water Quality) from the 2014 HDM will be reviewed and incorporated into the new SDM.

2.1 Phased Chapter Release

Updated chapters will be issued individually as part of the *202X Hydraulic Manual*. Each chapter will include:

- Effective date
- Superseded reference to the 2014 edition chapter(s)

Chapters not yet updated will remain valid from the 2014 manual until replaced.

2.2 Access to Current and Legacy Content

Both editions will be available online:

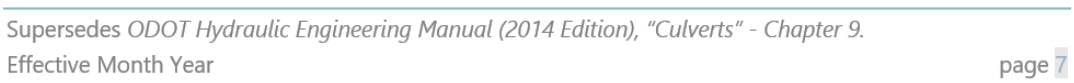
- **Hydraulic Manual – 202X Edition (In Progress)**
  Contains completed and approved rewritten chapters.
- **Hydraulic Manual – 2014 Edition (Legacy Reference)**
  Remains accessible for topics not yet rewritten.

A crosswalk table in the **Preface** identifies how content from the 2014 edition aligns with the new manual structure.

3 Effective Dates & Citation

Each chapter lists the effective date, and superseded reference.

- Footer Reference: "Supersedes *ODOT Hydraulic Engineering Manual (2014 Edition), "Topic."*
- Citation Format: *Effective [Date].*



4 Interim Development Direction

During the transition period:

- The most recent revised chapter takes precedence over any previous version from the effective date forward.
- If an updated chapter references a topic not yet revised, the 2014 version remains valid.

- When conflicts arise between editions, contact the Hydraulic Engineering Section for clarification prior to design approval.

5 Communication and Staff Coordination

To maintain consistency across regions and consultants:

- **Notification:** Publish an announcement and website update describing the new structure and phased rollout.
- **Status Tracking:** Provide a simple table of chapter status (Not Started, Development, Internal Review, Published).

Table 2 Anticipated 202X Hydraulic Manual Schedule

Chapter Topic	Status Phase	Est. Completion Date	Effective Date
Policy	Development	May 2026	
Hydrology	Not Started	May 2026	
Data Collection	Not Started		
Channels	Development		
Geomorphology	Not Started		
Bridge	Development	May 2026	
Culverts	Internal Review	December 2025	
Energy Dissipaters	Not Started		
Fish Passage	Published	--	May 2025
Storm / Roadway	Development		
Pipe Materials	Development	March 2026	
Temporary Water Management	Not Started	May 2026	
Trenchless Pipe Rehabilitation	Not Started		
Coastal Hydraulics	Not Started		
Construction Support	Not Started		
Example Problems …	Not Started		

Stormwater Design Manual

The schedule for the *202X Stormwater Design Manual* is currently being developed and will be incorporated in Table 3 once finalized.

Table 3 Anticipated 202X Stormwater Design Manual Schedule

Chapter Topic	Status Phase	Est. Completion Date	Effective Date
TBA			
TBA			
TBA			

6 Final Release and Archival

Upon completion of all chapters:

- The **Hydraulic Manual – 202X Edition** will be compiled and issued as ODOT's official hydraulic design reference.
- The **2014 Edition** will be archived and retained online for historical reference only for projects under development using the 2014 edition.

7 Roles and Responsibilities

Role	Responsibility	Notes
HES	- Lead manual development - Maintain version control and website updates - Lead first internal review - Ensure technical accuracy, consistency	- Development of new manual - Acts as the gatekeeper before broader internal review - Make chapters available with effective dates and superseded reference.
Internal ODOT Review	- Review chapters for applicability, compliance with policy, and clarity across divisions	- Feedback returned to HES for incorporation
Staff Hydraulic Engineers / Designers	- Apply updated guidance in project design - Provide feedback for continuous improvement	- Ensures field-level implementation - Inform future updates